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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,303	10/29/2001	James H. Stephens JR.	263550US8	1293

22850 7590 01/16/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314	EXAMINER	
	SHAW, PELING ANDY	
	ART UNIT	PAPER NUMBER
	2144	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
	10/045,303	STEPHENS, JAMES H.
Office Action Summary	Examiner	Art Unit	
	Peling A. Shaw	2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 October 2006*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   In view of the appeal brief filed on 10/13/2006, PROSECUTION IS HEREBY

REOPENED. New ground of rejection, i.e. claims 11-20 rejections under 35 U.S.C. 101,

is set forth below.

To avoid abandonment of the application, appellant must exercise one of the

following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply

under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a

supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131

or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

2.   Applicant has submitted an Appeal Brief on 10/13/2006 together with amended

claim language changes on claims 11-20 in an effort to reduce issues with respect to 35

USC § 101. Examiner had reviewed the amended claim changes and found that the

amended claim changes do touch upon the issues of claims 11-20 rejection under 35 USC

§ 101. This necessitates the issue of current action. Claims 1-20 are still pending.

3.   Amendment received on 12/07/2005 was entered. Claims 1, 4, 5, 11-13, 16, 17

and 20 were amended.

Priority

4.   This application has no priority claim made. The filing date is 10/29/2001.

Claim Rejections - 35 USC § 101 Utility

5.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 11-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

a. Claim 11 recites the limitation of "A <u>tangible computer</u> program product ..." that is a computer program per se. Applicant has further recites in claims 11 and 20 the limitation of "... the <u>tangible</u> computer-usable medium ..." that is described in lines 9-14 on page 12 of applicant's original specification as "Alternative embodiments of the invention include computer-usable media encoding logic such as computer instructions for performing the operations of the invention. Such <u>computer-usable media</u> may include, without limitation, storage media such as floppy disks, hard disks, CD-ROMs, read-only memory, and random access memory; as well as <u>communications media</u> such wires, <u>optical fibers, microwaves, radio waves, and other electromagnetic and/or optical carriers</u>." The cited portion of the specification provides intrinsic evidence that Applicant intends for the phrase of "tangible computer-usable medium" as used in the claims to include both "storage or memory media" and communication media, where the communication media includes "...wires, optical fibers, microwaves, radio waves, and other electromagnetic and/or optical carriers ..." in addition to anything else which would have reasonably been considered to be a signal medium by one of ordinary skill in the art. As such, the claim covers embodiments directed to signals, per se. Since a signal lacks the necessary physical articles or objects necessary for it

to be a machine or a manufacture within the meaning of 35 USC 101, and it's clearly not a series of steps or acts so as to be a process or combination of two or more substances so as to be a composition of matter, it fails to fall within a statutory category. Since the claim is not limited to embodiments eligible for patent protection, it is being rejected as non-statutory as directed to a form of energy rather than a patent-eligible machine, manufacture, process or composition of matter. Claims 11, 20 and their dependent claims 12-19 are thus rejected.

b. The term of "computer-usable media" is being considered to encompass "storage media or memory media such as magnetic or optical media, e.g., disk or CD-ROM" would make it considered as tangible and statutory, but the inclusion of "communication media or signals such as electrical, electromagnetic, or digital signals, conveyed via a communication medium such as a network and/or a wireless link" would make it considered as intangible and non-statutory.

c. It is recommend that claim 11 to be amended as:

"A storage media comprising program instructions which are computer-executable to cause a data processing system to perform ... " and claims 12-19 to be amended as "A storage media of claim 17, ...".

d. It is recommend that claim 20 to be amended as:

"...; a storage media comprising program instructions which are computer-executable to cause the data processing system to perform ..."

    e. For the purpose of applying art, claims 12-20 are read as with above suggested

        claim language changes.

Appropriate corrections are required.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Natarajan

et al. (US 6505244 B1), hereinafter referred as Natarajan as applied to claims 1 and 2,

and further in view of Evans (US 5694524 A), hereinafter referred as Evans and

Yates et al. (US 6330586 B1), hereinafter referred as Yates.

    a. Natarajan shows (claim 1) a method for modeling video teleconferencing

        network reliability (column 2, line 15-22; column 6, lines 49-65; column 29,

        line 37-column 30, line 33), the method comprising: obtaining historical data

        for multiple video conferences (Fig. 17, item 1706, 1722; column 29, line 37-

        column 30, line 33); storing said historical data in a call history table (Fig. 15;

        column7, lines 12-43: feedback-based adaptive network, report network

        information to a centralized data storage entity); executing a modeling

        algorithm that produces a model representing the historical data (Fig. 17, item

        1718 and 1720; column 6, lines 49-65; column 29, line 37-column 30, line

33); analyzing the model to identify characteristics associated with

undesirable outcomes for the video conferences (Fig. 17, item 1720, 1724,

1726, 1728; column 6, lines 49-65; column 29, line 37-column 30, line 33);

and configuring a video teleconferencing network to avoid at least one of the

identified characteristics associated with undesirable outcomes (Fig. 17, item

1708, 1710, 1712, 1714; column 6, lines 49-65; column 29, line 37-column

30, line 33). Natarajan does not show (claim 1) said historical data referenced

to video teleconferencing equipment vendor or model identification

information; (claim 3) wherein the operation of executing a decision tree

algorithm comprises executing an ID3-based algorithm; (claim 7) wherein: the

method further comprises building a training set from the historical data; the

operation of executing the modeling algorithm comprises applying the

modeling algorithm to the training set; and the operation of analyzing the

model comprises: deriving a rule set from the model; and analyzing the rule

set to identify the characteristics associated with undesirable outcomes for the

video conferences; (claim 9) the specification of multiple vendors in

collecting and processing video conference service performance data.

b. Yates shows (claim 1) said historical data referenced to video

teleconferencing equipment vendor or model identification information and

(claim 9) the specification of multiple vendors in collecting and processing

video conference service performance data (column 5, line 67-column 6, line

12) in an analogous art for the purpose of reconfigurable service provision via

a communication network.

c. Evans shows (claim 3) wherein the operation of executing a decision tree

algorithm comprises executing an ID3-based algorithm (column 9, line 12-

19); (claim 7) wherein: the method further comprises building a training set

from the historical data (column 1, line 51-column 2, line 13; column 2, line

42-58); the operation of executing the modeling algorithm comprises applying

the modeling algorithm to the training set (column 1, line 51-column 2, line

13; column 2, line 42-58); and the operation of analyzing the model

comprises: deriving a rule set from the model (column 1, line 51-column 2,

line 13; column 2, line 42-58); and analyzing the rule set to identify the

characteristics associated with undesirable outcomes for the video conferences

(column 1, line 51-column 2, line 58); (claim 9) in an analogous art for the

purpose of system and method for identifying conditions leading to a

particular result in a multi-variant system.

d. It would have been obvious to a person of ordinary skill in the art at the time

of the invention was made to modify Natarajan's functions of policy engine

which supports application specific plug-ins for enforcing policies in a

feedback-based, adaptive data network with Evans' functions of using

decision tree and training data set, particularly ID3 extension C4.5 algorithm,

Yates's functions of identifying a particular result in a multi- variant system,

and with specifying vendor consideration in the network performance data

collection.

e. The modification would have been obvious because one of ordinary skill in

the art would have been motivated to be able to use decision tree algorithm

per Natarajan' teaching and training data set in analyzing video conference

performance, particularly ID3 and its extension per Evans' teaching, and to

include multiple vendor consideration in specifying network performance data

set per Yates's teaching.

f. Regarding claim 2, Natarajan shows wherein the operation of executing a

modeling algorithm that produces a model comprises executing a decision tree

algorithm (column 14, lines 5-50; column 15, lines 1-37: decision tree).

g. Regarding claim 4, Natarajan shows further comprising conducting a new

video conference with the video teleconferencing network configured to avoid

at least one of the identified characteristics associated with undesirable

outcomes (Fig. 17, item 1720, 1724, 1726, 1728; column 29, line 37-column

30, line 33).

h. Regarding claim 5, Natarajan shows further comprising: updating the

historical data to create new historical data that includes values representing

characteristics of the new video conference (Fig. 15; column7, lines 12-43:

feedback-based adaptive network, report network information to a centralized

data storage entity; Fig. 17, item 1706, 1722; column 29, line 37-column 30,

line 33); executing the modeling algorithm to produce a new model

representing the new historical data (Fig. 17, item 1718 and 1720; column 29,

line 37-column 30, line 33; column 14, lines 5-50; column 15, lines 1-37:

decision tree); analyzing the new model to produce a result (Fig. 17, item

1720, 1724, 1726, 1728; column 29, line 37-column 30, line 33); and

reconfiguring the video teleconferencing network according to the result (Fig. 17, item 1708, 1710, 1712, 1714; column 29, line 37-column 30, line 33).

i. Regarding claim 6, Natarajan shows further comprising: evaluating the model to determine whether the model provides a desired level of efficacy (Fig. 17, item 1720, 1724, 1726, 1728; column 29, line 37-column 30, line 33); and in response to determining that the model does not provide a desired level of efficacy, using a different modeling algorithm to produce a different model (Fig. 17, item 1720, 1724, 1726, 1728; column 29, line 37-column 30, line 33).

j. Regarding claim 8, Natarajan shows wherein: the historical data includes attribute values for attributes of each video conference and an outcome value representing an outcome for each video conference (column 2, line 15-22; column 29, line 37-column 30, line 33); and the operation of applying the modeling algorithm to the training set comprises: using the outcome values as categorical attributes for the modeling algorithm (column 2, line 15-22; column 29, line 37-column 30, line 33); and using the attribute values as non-categorical attributes for the modeling algorithm (column 2, line 15-22; column 29, line 37-column 30, line 33).

k. Regarding claim 10, Natarajan shows wherein: the training set includes values representing a first set of attributes (Fig. 17, item 1706, 1722); and the method further comprises: evaluating the model to determine whether the model provides a desired level of efficacy (Fig. 17, item 1720, 1724, 1726, 1728); in response to determining that the model does not provide a desired level of

efficacy, building a different training set that includes a different set of

attributes (Fig. 17, item 1720, 1724, 1726, 1728); and applying the modeling

algorithm to the different training set to produce a different model (Fig. 17,

item 1708, 1710, 1712, 1714).

l. Claims 11-14, 16 and 20 are of the same scope as claims 1-2 and 5. These are

rejected for the same reasons as for claims 1-2 and 5.

m. Claims 15 and 17-19 are of the same scope as claims 3 and 7-9. These are

rejected for the same reasons as for claims 3 and 7-9.

Together Natarajan, Evans and Yates disclosed all limitations of claims 1-20. Claims

1-20 are rejected under 35 U.S.C. 103(a).

Response to Arguments

7.   Applicant's arguments filed on 10/13/2006 have been fully considered, but they
are not persuasive.

a.   Applicant's amended claim changes raise rejections under new ground.
    Claims 11-20 are either program per se or in addition referring to non-tangible
    subject matter, i.e. communication media. The new rejections are recited as
    above in the rejection sections.

b.   The previous Response to Arguments in the office action dated 02/28/2006
    and the notes in the advisory action dated 07/18/2006 are believed to be still
    applicable.

c.   The response to Appeal Brief filed on 10/13/2006 will be pending upon the
    response to the current office action.

Remarks

8.   The following pertaining arts are discovered and not used in this office action.

Office reserves the right to use these arts in later actions.

    a.   Hales et al. (US 6288739 B1) Distributed video communications system

    a.   Grabelsky et al. (US 6678250 B1) Method and system for monitoring and

       management of the performance of real-time networks

Conclusion

9.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. Refer to the enclosed PTO-892 for details.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Peling A. Shaw whose telephone number is (571) 272-

7968. The examiner can normally be reached on M-F 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, William C. Vaughn can be reached on (571) 272-3922. The fax phone

number for the organization where this application or proceeding is assigned is (571)

273-8300.

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Center (EBC) at 866-217-9197 (toll-free).

pas *pas*

Reopening approved.
Paul Sewell

WILLIAM VAUGHN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

**PAUL SEWELL
ACTING DIRECTOR**